

August 14, 2008

Mr. Dan McCaskill, CIH BNSF Railway Company 2600 Lou Menk Drive Fort Worth, TX 76161

Re: Rail Crossing Air Monitoring

**BNSF Personnel** 

Jay Effar Road and Cedar Creek Crossings

Libby, Montana

EMR Project No. 5539.100

Dear Mr. McCaskill:

EMR, Inc. (EMR) was contacted by the BNSF Railway Company (BNSF) to conduct personal air monitoring on the local BNSF Maintenance-of-Way crew during track crossing replacement at Jay Effar Road and Cedar Creek in Libby, Montana. EMR commenced with air monitoring during replacement of the Jay Effar Road crossing on July 22, 2008, finishing on July 23, 2008. EMR returned to conduct air monitoring on the Cedar Creek Crossing on July 29, 2008. Air monitoring was conducted to evaluate for the potential presence of airborne contaminant asbestos fibers associated with rail transport of W.R. Grace vermiculite ore or processed Zonolite shipped on this line through approximately 1990, the date of the mine closure.

Dan McCaskill, Manager Industrial Hygiene for BNSF, was on-site to communicate personal protective equipment (PPE) requirements of the work activity to the BNSF crew and to observe air monitoring activities by EMR. Nicole Bein, CDM representative, was on-site to observe work activities on behalf of EPA. David Welch, Project Site Manager for EMR, was on site to conduct personal air monitoring and PCM analysis of air samples collected from the BNSF track replacement crew and deliver air cassettes to EMSL 's Libby laboratory for AHERA TEM analysis.

Attached are a site location map, photolog of work activities, air monitoring data sheets with PCM air monitoring results, TEM results from EMSL laboratory and signed chain-of-custodies for samples submitted to EMSL lab.

#### Site Activities-Jay Effar Road

Crossing replacement activities commenced on July 21, 2008. However, there was no soil/ballast disturbance during initial activity of pulling rubber crossing panels and no air monitoring was conducted until the following day. On July 22, 2008, BNSF conducted track replacement of the siding track adjacent to the mainline. The work consisted of cutting the rail section spanning across the crossing, pulling the rail and ties out of the crossing, excavation of a limited quantity of track bed, removal and replacement of deteriorated ties and re-connecting the rail section with bolt plates. Following replacement, fresh ballast was placed over the track bed, tamped, regulated and raised to the proper

elevation. A water truck was utilized throughout the work activity for dust control. During this activity, EMR placed Gillian BDX II personal air pumps equipped with Zefon (Lot #15466) 25mm PCM cassettes with 0.8 um MCE filters on five BNSF employees:

Stu Hart, Tamper, BNSF Employee #5506852; Kerry Tunison, Crew Foreman, BNSF Employee #2650224; Tim Swilley, Ballast Regulator, BNSF Employee #7451719; Roger Stanley, Ground Crew, BNSF Employee #7456288; and Doug Atkins, Ground Crew, BNSF Employee #1689297

These samples were labeled samples #1 through #5 with two blanks labeled #6 and #7. Based on BNSF Maintenance-of-Way Track Time allowance to conduct the work, the BNSF crews worked continuously during track replacement activities. 3M half face respirators and tyvek suits were worn by BNSF personnel during the work activity. Work activities were temporarily suspended during eastbound and westbound train movement throughout the replacement.

Following phase contrast microscopy (PCM) analysis and at the request of BNSF, EMR delivered select air samples (#2 through #5) to the EMSL Libby laboratory for transmission electron microscopy (TEM) by the AHERA method.

Work resumed on July 23, 2008. Two additional BNSF employees were monitored:

Tom Long, Loader Operator, BNSF Employee #4876306; and Tom Dinning, Ground Crew, BNSF Employee #1689413

Employees from the previous day were monitored again with the exception of Roger Stanley, Ground Crew. The front-end loader equipment was primarily used to scrape ballast and soil from the track section removal area to allow placement of the replacement track section. In addition, the loader was used to maintain a right-of-way fire line to help protect the mainline and sidings from potential forest fires during fire season. Following phase contrast microscopy (PCM) analysis of the July 23, 2008 samples, EMR delivered select air samples (#9, #11, #12 and #13) to the EMSL Libby laboratory for transmission electron microscopy (TEM) by the AHERA method. Sample #12 was too overloaded for PCM analysis but was acceptable for TEM analysis.

#### Analytical Results-Jay Effar Road

Based on PCM results, four of five samples were submitted for TEM analysis for July 22, 2008 and four of six samples submitted on July 23, 2008. No detectable asbestos structures were identified by TEM on any of the samples.

#### Site Activities-Cedar Creek Road Crossing

The Cedar Creek Road crossing replacement was conducted on July 29, 2008. The crossing replaced was mainline track. No siding track was present on this crossing. Dan McCaskill, BNSF Manager of Industrial Hygiene, was not available to observe operations. However, EMR was in communication with Mr. McCaskill during all site activities. Ms. Nicole Bein of CDM Federal Programs was on-site during the replacement of the Cedar Creek Crossing to observe operations on behalf of EPA. Track time to conduct the work was limited with westbound and eastbound freight trains held up until track could be reconnected. Though a water truck was requested by BNSF industrial hygiene to be on-site for dust control at the time of track replacement, no water truck was available during site activities. Any visible dust created during the crossing work was primarily related to replacement ballast regulating activities following track section connection; dust related to soil and ballast under the track bed was limited. This

3

work consisted of cutting the mainline rail section spanning across the crossing, pulling the rail and ties out of the crossing, excavation of a limited quantity of track bed, removal and replacement of deteriorated ties and re-connecting the rail section with bolt plates. Following replacement, fresh ballast was placed over the track bed, tamped, regulated and raised to the proper elevation. During this activity, EMR placed Gillian BDX II personal air pumps equipped with Zefon (Lot #15466) 25mm PCM cassettes with 0.8 um MCE filters on six BNSF employees:

Doug Atkins, Ground Crew, BNSF Employee #1689297
Tom Long, Front end Loader Operator, BNSF Employee #4876306
Roger Stanley, Ground Crew, BNSF Employee #7456288
Kerry Tunison, Crew Foreman, BNSF Employee #2650224
Tim Swilley, Ballast Regulator, BNSF Employee #7451719; and
Greg Carter, Ground Crew, BNSF Employee #5508833

Because no water truck was available for dust control, all of the six personal samples were submitted to EMSL Labs for analysis by AHERA TEM. These samples were labeled #16 through 21 as well as two blanks labeled #22 and 23.

Analytical Results-Cedar Creek Road Crossing

Sample #16 worn by Doug Atkins, BNSF Ground Crew was considered dust overloaded by the EMSL Libby lab. EMR requested that this overloaded sample be tested for AHERA TEM by the indirect preparation method to allow TEM analysis. No detectable asbestos structures were identified by TEM on any of the samples.

EMR appreciates this opportunity to be of service. If you have any questions, please call at your earliest convenience.

Best Regards,

David L. Welch, L.G. Project Site Manager

Attach:

Site Locations Map-Aerial Photograph

Photolog

Asbestos Air Sampling Data Sheet/Chain-of-Custody

**TEM Analytical Results** 

and I Welch

Photo courtesy of Google Earth<sup>TM</sup>







BNSF Crossing Replacements Jay Effar Road and Cedar Creek Libby, Montana Designed by: DLW
Drawn by: DLW
Checked by: TP

Project # 5539-100

Revision: 1

Date: 8-14-2008 Scale: Not Available Figure 1 Site Location Map

Photolog EMR Project Number 5539.100 BNSF – Track Crossing Air Monitoring Jay Effar Road Replacement Libby, Montana



Photo 1: Removing track section from Jay Effar Road Xing.



Photo 2: Water truck conducting dust control.



Photo 3: Production tamper on Jay Effar Road Xing.



Photo 4: BNSF crews working on removed track section

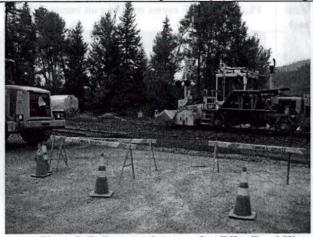


Photo 5: Ballast regulator on Jay Effar Road Xing.



Photo 6: Installing new Xing Panels.

Photolog EMR Project Number 5539.100 BNSF – Track Crossing Air Monitoring Cedar Creek Crossing Replacement Libby, Montana



Photo 1: Removed track section over Cedar Creek Xing.



Photo 2: Loader working at Cedar Creek crossing.



Photo 3: Fresh ballast placement over track Xing-Cedar Creek.



Photo 4: BNSF crews working on removed track section



Photo 5: Crossing immediately after removal of track section.



Photo 6: BNSF worker controlling flow of ballast out of hopper car.

ENCLOSURE				ASBESTO	S AIR S	SAMPLING CHAIN-OF-CUSTODY	В	i) 0.					
INFENCLOSURE		_	PASS						CL	EARANCE SAMPLES	S		
O ENCLOSURE GLOVEBAG		of yours	OR FAIL					CLEARANCE LEVEL			L 0.0		
PROJECT	NO.	5539.100	() par				DATE:						
PROJECT	TITLE:	Personal	Air Moni	toring-Tra	ck Xings-Libb	y, MT	PROJ. SITE MGR.:	David L. Welch					
CLIENT:		BNSF			Day.	LN	CORPORATED WORK AREA:						
			No.	de la	CONT.		CW S		Jay Effar	Road	A 1802		
Sample Number	Pump Number	Time On	Time Off	Total Minutes	Flow Rate (I/m - avg.)	Volume (liters)	Sample Location/Description	Fibers (-blank)	Flds	Fibers/cc	8 Hr. TWA Fibers/cc		
1	4161	09:55	15:50	355	2.2	781	IWA Personal Stu Hart-Tamper	4.0	100	0.003	0.002		
2	2266	09:50	14:52	302	2.1	634	IWA Personal Kerry Tunison-Crew Foreman	10.5	100	0.008	0.005		
3	9755	09:52	15:54	362	2.5	905	IWA Personal Tim Swilley-Ballast Regulator	15.0	100	0.008	0.006		
4	4172	10:09	12:50	161	2.6	419	IWA Personal Roger Stanley-Ground Crew	8.0	100	0.009	0.003		
5	6528	10:14	12:47	153	2.1	321	IWA Personal Doug Atkins-Ground Crew	7.5	100	0.011	0.004		
6		100-20	11100		3.7	929	Open Blank	0.0	100	67600	6,004		
7			_		- 33		Sealed Blank	0.0	100	2 0es	0.903		
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Received by (Name/Signature): Date:			Date:	ok ma	(Laboratory) Analyzed by (Name/Signature): David L. Welch	Date: 7/22/2008							

Comments:

Track Crossing Replacement-Jay Effar Road

Turnaround Time ( ) On-site ( ) Immediate ( ) 24 Hour ( ) Normal

Custody

Seal Intact?

Sample

Condition:

Laboratory Receiving Notes:

# BO8 0001

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Sample	Pump	Time	Time	Total	Flow Rate	Volume	Sample Location/Description		Flds	Fibers/cc	8 Hr. TWA
Number	Number	On	Off	Minutes	(I/m - avg.)	(liters)		(-blank)			Fibers/cc
							IWA NOT SUBMITTED Personal		100		
1	4161	09:55	15:50	355	2.2	781	Stu Hart-Tamper DO 7-22-08	4.0	100	0.003	0.002
		1					IWA Personal	0.0	190		
2 -	2266	09:50	14:52	302	2.1	634	Kerry Tunison-Crew Foreman	10.5	100	800.0	0.005
		70.11	15.115	723	51	253	IWA Personal	-	101	COLL	
3 ~	9755	09:52	15:54	362	2.5	905	Tim Swilley-Ballast Regulator	15.0	100	0.008	0.006
	9755	09.52	15.54	302	2.5	903			100	0.000	0.000
							17/10/05/05/05/17/19/1		400	6,005	0.003
4	4172	10:09	12:50	161	2.6	419	Roger Stanley-Ground Crew	8.0	100	0.009	0.003
	65285	89.50	100	1	1 22	7.0	IWA Personal		100	0,1000	0.005
5	-628-7	10:14	12:47	153	2.1	321	Doug Atkins-Ground Crew	7.5	100	0.011	0.004
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PROJECT	TITLE:	Personal	Air Monit	toring-Trac	k Xings-Libb	y, MT	PROJ. SITE MGR.: David L. Welch					
CLIENT:		BNSF			TO PER S	IN	CORPORATED WORK AREA:	BNSF Track Crossing:				
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Sample Number	Pump Number	Time On	Time Off	Total Minutes	Flow Rate (I/m - avg.)	Volume (liters)	Sample Location/Description	Fibers (-blank)	Flds	Fibers/cc	8 Hr. TWA Fibers/cc	
8	4161	09:35	14:24	289	2.1	607	IWA Personal Stu Hart-Tamper	3.5	100	0.003	0.002	
9	4172	09:37	14:22	285	2.6	741	IWA Personal Tim Swilley-Ballast Regulator	11.0	100	0.007	0.004	
10	6528	09:40	14:25	285	1.9	542	IWA Personal Kerry Tunison-Crew Foreman	8.0	100	0.007	0.004	
11	9047	09:51	13:54	243	2.0	486	IWA Personal Tom Long-Front End Loader	42.5	100	0.043	0.022	
12	2266	10:08	13:51	223	2.1	468	IWA Personal Tom Dinning-Ground Crew		ded Samp	le-Not Analyz	ted by PCM	
13	9755	10:09	13:52	223	2.3	513	IWA Personal Doug Atkins-Ground Crew	12.5	100	0.012	0.006	
14	4461	100.31	14.34	- 38	2.1	801	Open Blank	0.0	100	0.003	0'003	
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David L. W		Cont.		:	Date: 7/23/2008		Received by (Name/Signature):		Jay Effer	Date:		
Received I	by (Name/s	Signature):			Date:	(Laboratory) Analyzed by (Name/Signature): Date:						

Turnaround Time ( ) On-site () Immediate () 24 Hour ( ) Normal

David L. Welch
Comments:

Track Crossing Replacement-Jay Effar Road

Laboratory Receiving Notes:

Custody Seal Intact? Sample Condition:

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7/23/2008

ENCLOSURE					ASBESTO	S AIR S	SAMPLING CHAIN-OF-CUSTODY		BLANK AVERAGE	(FIBERS/100 FIELDS	S) 0
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GLOVEBAG		-	FAIL								
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PROJECT	TITLE:	Persona	Air Monit	oring-Trac	k Xings-Libb	y, MT	PROJ. SITE MGR.:		David L. V	Velch	
CLIENT:		BNSF				I N	CORPORATED WORK AREA:		BNSF Tra	ck Crossing:	
		L UPPLIED	adding wal				security of (security)		Jay Effar I	Road	
Sample Number	Pump Number	Time On	Time Off	Total Minutes	Flow Rate (I/m - avg.)	Volume (liters)	Sample Location/Description	Fibers (-blank)	Flds	Fibers/cc	8 Hr. TWA Fibers/cc
8	4161	09:35	14:24	289	2.1	607	Stu Hart-Tamper DJ 7-23-28	3.5	100	0.003	0.002
9	4172	09:37	14:22	285	2.6	741	IWA Personal Tim Swilley-Ballast Regulator	11.0	100	0.007	0.004
10	6528	09:40	14:25	285	1.9	542	IWA NOT SUBMITTED DALPersonal Kerry Tunison-Crew Foreman 7-23-08	8.0	100	0.007	0.004
11	9047	09:51	13:54	243	2.0	486	IWA Personal Tom Long-Front End Loader	42.5	100	0.043	0.022
12	2266	10:08	13:51	223	2.1	468	IWA Personal Tom Dinning-Ground Crew	Overloa	ded Samp	le-Not Analyz	ed by PCM
13	9755	10:09	13:52	223	2.3	513	IWA Personal Doug Atkins-Ground Crew	12.5	100	0.012	0.006
14	4384	64-33	14:331	2/16	77	1963	Ореп Blank 723-08	0.0	100	0.003	0105
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Samples C David L. W	ollected B	y (Name/S	Signature)		Date: 7/23/2008		Received by (Name/Signature):	ature): Date: 7/23/08 170			
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PROJECT NO.
PROJECT TITLE:
Personal Air Monitoring-Track Xings-Libby, MT

PROJECT TITLE:
Personal Air Monitoring-Track Xings-Libby, MT

INCORPORATED

DATE:
PROJ. SITE MGR.:
WORK AREA:
BNSF Track Crossing:
Cedar Creek

Sample Pump Time Time Total Flow Rate Volume Sample Location/Description Fibers

Number Number Number On Off Minutes (//m - avg.) (liters)

Fibers/cc

Sample Number	Pump Number	Time On	Time Off	Total Minutes	Flow Rate (I/m - avg.)	Volume (liters)	Sample Location/Description	Fibers (-blank)	Flds	Fibers/cc	8 Hr. TWA Fibers/cc
16	4172	09:42	13:27	225	2.5	563	IWA Personal Doug Atkins-Ground Crew	SUBMIT 7/29/08	TED FOR A	HERA TEM .	ANALYSIS
17	9047	09:45	15:50	365	1.9	694	IWA Personal Tom Long-Front End Loader	SUBMIT 7/29/08	TED FOR A	HERA TEM .	ANALYSIS
18	6528	09:50	13:28	218	1.9	414	IWA Personal Roger Stanley-Ground Crew	SUBMITT 7/29/08	TED FOR A	HERA TEM .	ANALYSIS
19	4161	10:00	13:33	213	2.5	533	IWA Personal Kerry Tunison-Tamper	SUBMITT 7/29/08	TED FOR A	HERA TEM .	ANALYSIS
20	9755	09:58	13:31	213	2.5	533	IWA Personal Tim Swilley-Ballast Regulator	SUBMITT 7/29/08	TED FOR A	HERA TEM	ANALYSIS
21	6528	10:00	13:38	218	2.0	436	IWA Personal Greg Carter-Ground Crew	SUBMITT 7/29/08	TED FOR A	HERA TEM	ANALYSIS
22	4177	08/4	198	234	2.4	100	Open Blank	Not Analy	/zed	00).	
23	-	-	- 10	potati	1-16	, (ma	Sealed Blank	Not Analy	/zed		Liberary Internal
Samples C David L. W	ollected By /elch	(Name/S	Signature)		Date: 7/29/2008		Received by (Name/Signature):	Date:			
Received I	y (Name/S	ignature)	en Salana		Date:	er ni	(Laboratory) Analyzed by (Name/Signature):	2V	BMSE / B	Date:	t.
Turnaroun	d Time ( )	On-site	() Imme	diate () 2	24 Hour ( )	Normal	Comments:  No PCM analysis conducted following	ig acetone	and triaceti	n chemical t	aken from
Laboratory	Receiving	Notes:	Custody Seal Inta		Sample Condition:	packed field supplies by Transportation Security Administration at airport					

ENCLOSURE	CLOSURE ASBESTOS AIR SAMPLING CHAIN-OF-CUSTODY						BLANK AVERAGE (FIBERS/100 FIELDS)				
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NO ENCLOSURE			OR				<u> </u>			CLEARANCE LEVE	L 0.0
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PROJECT	NO.	5539.100	)				DATE:				
PROJECT	TITLE:	Personal	Air Monit	oring-Trac	k Xings-Libb	y, MT	PROJ. SITE MGR.:		David L. V	Velch	
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Sample Number	Pump Number	Time On	Time Off	Total Minutes	Flow Rate (l/m - avg.)	Volume (liters)	Sample Location/Description	Fibers (-blank)	Flds	Fibers/cc	8 Hr. TWA Fibers/cc
<b>∠</b> 16	4172	09:42	13:27	225	2.5	563	IWA Personal Doug Atkins-Ground Crew	المسا	41		
V 17	9047	09:45	15:50	365	1.9	694	IWA Personal Tom Long-Front End Loader	Saza Sauji i J	ar services		
~ <sub>18</sub>	6528	09:50	13:28	218	1.9	414	IWA Personal Roger Stanley-Ground Crew	Sum	D4-04-H	i ga seka	war eine
<b>√</b> 19	4161	10:00	13:33	213	2.5	533	IWA Personal Kerry Tunison-Tamper				
<u>~ 20</u>	9755	09:58	13:31	213	2.5	533	IWA Personal Tim Swilley-Ballast Regulator				
w 21	6528	10:00	13:38	218	2.0	436	IWA Personal Greg Carter-Ground Crew		G I Dispersi		
22	42/25	NoT	SUBMI		ZU,	7-29	୍ଦ୍ର Open Blank	4		aley as y	
23	elipsis ,mai <del>s-</del>		64 F		-000	7-	75 - 의 명 Sealed Blank				Familian
Samples ( David L. V	Collected E	Name/S	Signature)		Date: 7/29/2008		Received by (Name/Signature):    Received by (Name/Signature):   Date:   7/29/0				
Received	by (Name/	Signature)			Date:		(Laboratory) Analyzed by (Name/Signature): Date:				
Turnarour	nd Time (	) On-site	() Imme	diate X	24 Hour ( )	Normal	Comments:  Track Crossing Replacement-Cedar	Creek	Barrier .		
Laborator	y Receiving	Notes:	Custody Seal Inta	ct?	Sample Condition:			E		Territorial	14

## **ASBESTOS AIR SAMPLING CHAIN-OF-CUSTODY**

LINGLOSUKL	
IINI-ENCLOSURE	PASS
NO ENCLOSURE	OR
GLOVEBAG	FAIL

BLANK AVERAGE (FIBERS/100 FIELDS) 0.0 CLEARANCE SAMPLES CLEARANCE LEVEL 0.01

PROJECT NO.

CLIENT:

ENCLOCUDE

5539.100

PROJECT TITLE:

Personal Air Monitoring-Track Xings-Libby, MT

Seal Intact?

Condition:

BNSF



DATE: 7/29/2008

PROJ. SITE MGR.: WORK AREA: David L. Welch BNSF Track Crossing:

Cedar Creek

Sample Number	Pump Number	Time On	Time Off	Total Minutes	Flow Rate (I/m - avg.)	Volume (liters)	Sample Location/Description	Fibers (-blank)	Flds	Fibers/cc	8 Hr. TWA
							IWA Person	al	1 3 3		
16	4172	09:42	13:27	225	2.5	563	Doug Atkins-Ground Crew	Overloade	ed	N.	
8	ITTE						IWA Person	al			
17	9047	09:45	15:50	365	1.9	694	Tom Long-Front End Loader	58.0	100	0.041	0.031
31	HIER I						IWA Person	al			
18	6528	09:50	13:28	218	1.9	414	Roger Stanley-Ground Crew	39.0	100	0.046	0.021
							IWA Person	al	T I	17	
19	4161	10:00	13:33	213	2.5	533	Kerry Tunison-Tamper	43.0	100	0.040	0.018
							IWA Person	al			
20	9755	09:58	13:31	213	2.5	533	Tim Swilley-Ballast Regulator	17.0	100	0.016	0.007
	FILE						IWA Person	al			
21	6528	10:00	13:38	218	2.0	436	Greg Carter-Ground Crew	9.0	100	0.010	0.005
	Hill						H 2 H 2 H 2 H		10		10 10
22	-				-	-	Open Blank	2.0	100	-	
							9%			1	1 8 2
23	collected By	/Nama/S	ianatura)		Date:		Sealed Blank	0.0	100	Date:	
David L. W	- T	(Ivaille/S	ngnature)		7/29/2008		Received by (Name/Signature): Michael C. McKay			8/7/2008	
Received by (Name/Signature): Date:					(Laboratory) Analyzed by (Name/Signature):	77	Date:				
Michael C. McKay					Michael C. McKay 8/7/2008						
urnaroun	urnaround Time ( ) On-site () Immediate () 24 Hour ( ) Normal				Comments: PCM analysis done after TEM anal	ysis that co	ntained no	detectable as	sbestos fibe		
aboratory	Receiving	Notes:	Custody		Sample		PCM not conducted initially based	on acetone	and triacet	in slide prepa	ration chen

PCM not conducted initially based on acetone and triacetin slide preparation chemical

removed by airport security.



## EMSL Analytical, Inc.

107 West 4th Street, Libby, MT 59923

Phone: (406) 293-9066

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Attn: Dave Welch

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Suite 114

5301 E. River Road Fridley, MN 55421

(763) 277-5201

Phone: (763) 277-5200

Project:

Fax:

B080001

Samples collected 7/22/2008

EMSL Proj:

Analysis Date:

Sampling Date

Customer ID:

Customer PO:

EMSL Order:

Received:

7/23/2008 7/23/2008

EMRI53

270800615

07/22/08 6:02 PM

ReportD ate:

7/22/2008

Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

Sample	Location	Volume (Liters)	Area Analyzed (mm²)	Non Asb	Asbestos Type(s)	# Structo ≥ 0.5μ < 5	ures ≥5µ	Analytical Sensitivity (S/cc)	Asbe Concen (S/mm²)	estos tration (S/cc)
2 270800615-0001		634.00	0.1300		None Dete	ected		0.0047	<7.70	<0.0047
3 270800615-0002	1 4 14	905.00	0.0910		None Dete	ected		0.0047	<11.00	<0.0047
4 270800615-0003	9 14 3 14 3	419.00	0.1300	00	None Dete	ected	98	0.0071	<7.70	<0.0071
5 270800615-0004	HE SIX	321.00	0.1300		None Dete	ected		0.0092	<7.70	<0.0092

Analyst(s)

Ron Mahoney (4)

R.K.M ahoney, Laboratory Manager or other approved signatory

Disclaimers: The laboratory is notr esponsible for data reported in structures/cc, which is dependenton volume collected by non-laboratory personnel. This lab is only responsible for data reported in structures/mm². This report may notbe reproduced, except in full, without written approval by EMSL. This report must no tbe used to claim product endorsements y NVLAP or any agency of the U.S.G overnment. This report elates only to the samples reported above. Quality control data (including 95% confidence limits and laboratory and analysts' accuracy and precision) is available upon request. As per 40 CFR 763, the initial screening testm ay notbe applied to samples with collected volumes of <1200 liters. The test results contained within this reportm eet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Accredited for NVLAP PLM/TEM. NVLAP Libby code: 200745-0



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Phone: (763) 277-5200

Project:

B080002

Samples collected 7/23/2008

Customer ID:

Customer PO:

Received:

07/23/08 5:07 PM

EMSL Order:

270800623

EMRI53

EMSL Proj:

BNSF Libby, MT 2008

Analysis Date:

7/24/2008 7/24/2008

ReportD ate: Sampling Date

7/23/2008

## Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

	Volume	Area Analyzed (mm²)	Non	Asbestos	# Structu	ires	Analytical Sensitivity	Asbestos Concentration	
Sample Location	(Liters)	(mm²)	Asb	Type(s)	$\geq 0.5\mu < 5$	≥ <i>5</i> µ	(S/cc)	(S/mm²)	(S/cc)
9 270800623-0001	741.00	0.1040	MINISTER STATE	None Detected			0.0050	<9.60	<0.0050
11 270800623-0002	486.00	0.1300		None Dete	ected		0.0061	<7.70	<0.0061
12 270800623-0003	468.00	0.1300		None Dete	ected		0.0063	<7.70	<0.0063
13 270800623-0004	513.00	0.1300		None Dete	ected		0.0058	<7.70	<0.0058

Ana	het	/el
Mila	Iyot	(0)

Ron Mahoney (4)

R.K.M ahoney,L aboratory Manager or other approved signatory

Disclaimers: The laboratory is notr esponsible for data reported in structures/cc,w hich is dependenton volume collected by non-laboratory personnel. This lab is only responsible for data reported in structures/mm². This report may notbe reproduced,e xcept in full, withoutwritten approval by EMSL. This report must no tibe used to claim product endorsement by NVLAP or any agency of the U.S.G overnment. This report elates only to the samples reported above. Quality control data (including 95% confidence limits and laboratory and analysts accuracy and precision) is available upon request. As per 40 CFR 763, the initial screening test may notbe applied to samples with collected volumes of <1200 liters.The test results contained within this reportment the requirements of NELAC unless otherwise noted. Accredited for NVLAP PLM/TEM. NVLAP Libby code: 200745-0



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Project: B080003

Samples collected 7/29/2008

EMSL Proj:

Customer ID:

Customer PO:

EMSL Order:

Received:

BNSF Libby, MT 2008

07/29/08 4:56 PM

Analysis Date: ReportD ate:

7/30/2008 7/30/2008

EMRI53

270800662

Sampling Date

7/29/2008

## Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

	Location		Volume	Area Analyzed (mm²)	Non Asb	Asbestos Type(s)	# Structures		Analytical Sensitivity	Asbestos Concentration	
Sample			(Liters)				$\geq 0.5\mu < 5$	≥5µ	(S/cc)	(S/mm²)	(S/cc)
16 270800662-0001			563.00			Overloade	d				
17 270800662-0002	The second	1000-0	694.00	0.1300	None Detected			0.0043	<7.70	<0.0043	
18 270800662-0003		LNG A	414.00	0.1300	None Detected			0.0072	<7.70	<0.0072	
19 270800662-0004			533.00	0.1300	None Detected			0.0056	<7.70	<0.0056	
20 270800662-0005			533.00	0.1300		None Dete	ected		0.0056	<7.70	<0.0056
21 270800662-0006			436.00	0.1300		None Dete	ected		0.0068	<7.70	<0.0068

Analyst(s)

Ron Mahoney (5)

R.K.M ahoney, Laboratory Manager or other approved signatory

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Fax:

Project:

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Phone: (763) 277-5200

Samples collected 7/29/2008

EMSL Proj:

Customer ID:

Customer PO:

EMSL Order:

Received:

BNSF Libby, MT 2008

07/29/08 4:56 PM

Analysis Date:

7/31/2008

270800662

EMRI53

ReportD ate:

7/31/2008

Sampling Date

7/29/2008

## Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by AHERA -EPA 40 CFR Part 763 Appendix A to Subpart E (Modified for Indirect Prep)

Sample	Location	Volume (Liters)	Area Analyzed (mm²)	0.71010.0000		# Structures		Analytical Sensitivity	Total Asbestos Concentration	
						$\geq 0.5\mu < 5$	≥5μ	(S/cc)	(S/mm²)	(S/cc)
16		563.00		None Detected			0.0490	<72.00	<0.0490	
270800662-0001										

Analyst(s)

Ron Mahoney (1)

R.K.M ahoney, Laboratory Manager or other approved signatory

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